# 19. CYCLEA Arnott ex Wight, Ill. Ind. Bot. 1: 22. 1840.

# 轮环藤属 lun huan teng shu

Paracyclea Kudô & Yamamoto.

Vines. Petiole usually long; leaf blade peltate, palmately veined. Inflorescences axillary, terminal or on old stems, thyrsoid, usually narrow, rarely broad and sparse; bracts small. Male flowers: sepals usually 4 or 5(or 6), usually connate, 4- or 5-lobed, rarely free; petals 4 or 5, usually connate, entire or 4–8-lobed, rarely free, sometimes absent; stamens 4 or 5, connate into a peltate synandrium, anthers dehiscing transversely. Female flowers: sepals and petals 1 or 2, opposite to each other, rarely absent; carpel 1, stigma short, 3- or many lobed. Drupes obovate-globose to rotund, often slightly flat, style scar near base; endocarp bony, horseshoe-shaped, abaxially bearing 2 or 3 rows of tubercles on both surfaces of rib; condyle usually 1 or 2 cavities, often perforate between style scar and base. Seed horseshoe-shaped; embryo terete, embedded in endosperm.

About 29 species: S and SE Asia; 13 species (five endemic) in China.

1a. Inflorescences cauliflorous or on leafless old branches, broad and large, many branched	13. C. polypetala
1b. Inflorescences axillary on normal leafy shoots, narrow and few branched (except C. barbata).	
2a. Male inflorescences broad and large, many branched	1. C. barbata
2b. Male inflorescences narrow, thyrsoid, few branched, sometimes spikelike.	
3a. Male flowers with sepals conspicuously connate.	
4a. Male sepals forming cup, lobes ca. as long as tube; leaves and branchlets hispid; petioles not	
peltately inserted	10. C. meeboldii
4b. Male sepals not forming cup, lobes much shorter than tube; leaves and branchlets puberulent or	
subglabrous; petioles $\pm$ peltately inserted.	
5a. Male sepals urceolate, pubescent	12. C. tonkinensis
5b. Male sepals mitriform, glabrous.	
6a. Synandrium not exserted; male sepals 2.5-4 mm	5. C. racemosa
6b. Synandrium exserted; male sepals ca. 2 mm or shorter	
3b. Male flowers with sepals free or only connate at base.	
7a. Rachis and drupes glabrous.	
8a. Endocarp ca. 7 mm	2. C. sutchuenensis
8b. Endocarp less than 5.5 mm.	
9a. Endocarp subtruncate or slightly emarginate; leaves $2.5-7 \times 1.5-4$ cm, glabrous or	
sparsely pilose, not papillate	3. C. hypoglauca
9b. Endocarp tapered at base; leaves $6-12 \times 3-5.5$ cm, abaxially densely setose or papillate .	4. C. wattii
7b. Rachis and drupes pubescent to hispid.	
10a. Leaf blade with margins coarsely 1- or 2-toothed	9. C. ochiaiana
10b. Leaf blade with margins entire or sparsely serrate.	
11a. Female flowers with petals as long as sepals; male flowers with petal 1 or absent	8. C. gracillima
11b. Female flowers with petals much smaller than sepals (female flowers unknown in	
C. longgangensis).	
12a. Male sepals mitriform, 2.5–4 mm	5. C. racemosa
12b. Male sepals not mitriform.	
13a. Leaf margin long pubescent; male sepals oblong-elliptic	6. C. longgangensis
13b. Leaf margin shortly puberulent; male sepals obovate or spatulate	
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1. Cyclea barbata Miers, Ann. Mag. Nat. Hist., ser. 3, 18: 19. 1866.

### 毛叶轮环藤 mao ye lun huan teng

Cyclea ciliata Craib; C. wallichii Diels.

Vines, herbaceous, to 5 m. Roots slightly fleshy, ?not tuberous. Young branches hispid. Petiole hispid, 1–5 cm; leaf blade conspicuously peltate,  $\pm$  broadly triangular-ovate, 4–10 × 2.5–8 cm or more, papery or submembranous, abaxially puberulent to tomentose, margin densely hispid, adaxially hispid or sometimes subglabrous, base slightly emarginate or truncate, apex acutely acuminate or obtuse with a finely mucronate acumen, palmately 9- or 10(-12)-veined. Inflorescences axillary or cauliflorous. Male inflorescences paniculate, broad and large,  $7-30 \times (0.5-)4-12$  cm, puberulent, flowers condensed to capitate, interruptedly borne on branches. Male flowers: pedicels conspicuous; calyx cupular, 1.5-2 mm, hispid, lobes 4 or 5, ca. 1/2 length of tube; corolla cup-shaped (turbinate), ca. 0.7 mm, apex subtruncate; synandrium slightly exserted. Female inflorescences pendulous, narrowly racemelike paniculate. Female flowers sessile; sepals 2, slightly unequal, obovate to rhombic, ca. 0.4 mm, pilose on outer surface; petals 2, reniform, ca.  $0.5 \times$ 1 mm, glabrous; ovary densely hispid, stigma 3-laciniate. Drupes red, obliquely obovate to rotund, puberulent; endocarp ca. 3 mm, abaxially bearing 3 rows of papillate tubercles, row bordering condyle not very conspicuous. Fl. autumn, fr. summer.

Forests, forest margins, shrublands at village margins. SW Guangdong, Hainan [NE India, Indonesia, Laos, Myanmar, Thailand, Vietnam].

This species is used medicinally.

**2.** Cyclea sutchuenensis Gagnepain, Bull. Soc. Bot. France 55: 37. 1908.

# 四川轮环藤 si chuan lun huan teng

Cyclea sutchuenensis var. sessilis Y. C. Wu; Paracyclea sutchuenensis (Gagnepain) Yamamoto; P. sutchuenensis var. sessilis (Y. C. Wu) Yamamoto.

Vines, herbaceous, slightly woody when old, glabrous except sometimes for pubescent bracts. Branchlets slender, striate. Petiole 2-6 cm; leaf blade peltate, insertion 1-5 mm from margin, lanceolate or ovate,  $5-15 \times 2-5.5$  cm, thinly leathery or papery, often brown when dry, base rounded, margin entire, apex acutely acuminate or caudate-acuminate, palmately 3-5veined, prominent abaxially, reticulation slightly conspicuous. Inflorescences thyrsoid, sometimes spikelike, axillary, to 20 cm; rachis often twining, black when dry; peduncle short. Male inflorescences slender; bracts rhombic-ovate or rhombic-lanceolate, 1-1.5 mm or slightly longer, usually glabrous. Male flowers: sepals 4, connate only at base, slightly thick, elliptic or ovate-oblong, ca. 2.5 mm, apiculate; petals 4, usually connate, rarely free, 0.4-0.6 mm; synandrium ca. 1.5 mm, anthers 4. Female flowers: sepals 2, 1 rotund, margin involute, ca. 1.8 mm in diam., other conduplicate, 2-2.1 mm; petals 2, minute, less than 1 mm, adnate to base of sepals; ovary glabrous. Drupes red; endocarp ca. 7 mm, abaxially bearing 3 rows of tubercles. Fl. summer, fr. autumn.

• Forests, forest margins, shrublands. N and W Guangdong, E and NE Guangxi, Guizhou, Hubei, S Hunan, E and SE Sichuan, NE and SE Yunnan.

**3.** Cyclea hypoglauca (Schauer) Diels in Engler, Pflanzenr. 46(IV.94): 319. 1910.

# 粉叶轮环藤 fen ye lun huan teng

Cissampelos hypoglauca Schauer, Nov. Actorum Acad. Caes. Leop.-Carol. Nat. Cur. 19(Suppl. 1): 479. 1843; Cyclea deltoidea Miers; C. migoana Yamamoto.

Vines, woody when old, glabrous except for hairy leaf axils. Branchlets slender. Petiole slender, 1.5-4 cm; leaf blade usually conspicuously peltate, ovate-triangular to ovate,  $2.5-7 \times 1.5-4.5$  cm or slightly more, papery, both surfaces glabrous or sparsely whitish puberulent, base truncate to rounded, margin entire, slightly involute, apex acuminate, palmately 5–7-veined, slender, reticulation not very conspicuous. Inflorescences axillary. Male inflorescences scattered spicate; rachis unbranched or sometimes shortly branched at base, slender, glabrous; bracts small, lanceolate. Male flowers: sepals 4 or 5, free, obovate or obovate-cuneate, 1-1.2 mm; petals 4 or 5, usually connate, cupshaped, rarely free, 0.5-1(-1.5) mm; synandrium slightly exserted, 1-1.2 mm. Female inflorescences thicker, thyrsoid; ra-

chis conspicuously twining, up to 10 cm. Female flowers: sepals 2, rotund, ca. 0.8 mm in diam.; petals 2, unequal, large one ca. as long as sepals; ovary glabrous. Drupes red, glabrous; endocarp ca. 3.5 mm, subtruncate or slightly emarginate, abaxially bearing 3 rows of tubercles, row bordering condyle sometimes inconspicuous.

Forest margins, shrublands on hills. C and S Fujian, Guangdong, Guangxi, Guizhou, Hainan, S Hunan, C and S Jiangxi, SE Yunnan [N Vietnam].

**4.** Cyclea wattii Diels in Engler, Pflanzenr. 46(IV.94): 320. 1910.

### 西南轮环藤 xi nan lun huan teng

Paracyclea wattii (Diels) Yamamoto.

Vines, woody when old, 2-6 m. Old stems gray, irregularly and longitudinally fissured; branchlets slender, striate, glabrous or puberulent. Petiole slender, 3-5 cm or slightly longer, glabrous; leaf blade peltate or not, variously cordate, broadly ovate, or lanceolate,  $6-12 \times 3-5.5$  cm or slightly longer, papery, slightly glaucous, abaxially densely setose or papillate, adaxially glabrous and glossy, base cordate, rounded, obtuse, or subtruncate, margin entire, apex long acuminate to mucronate. Inflorescences racemelike, axillary, composed of 1-3 cymelets; peduncle slender, 2-10 cm, glabrous; bracts 1-1.5(-2) mm, apex sparsely pubescent. Male flowers: sepals 5 or 6, lanceolate, oblong or elliptic, unequal,  $1-1.5 \times 0.3-0.7$  mm; petals 3-6, unequal, rotund, broadly ovate or ligulate, 0.3-0.6 mm; synandrium 0.5-1 mm, anthers 4. Female flowers: sepals 2, black, obovate-oblong or oblanceolate-oblong, 1.5-2 mm; petals 2, ovate or broadly ovate, 0.5-0.7 mm, slightly fleshy; ovary subglobose, stigma many lobed. Drupes oblate, glabrous; endocarp ca. 5.5 mm, tapered at base, abaxially bearing 2 or 3 rows of slightly projecting tubercles.

Forest margins, shrublands. Chongqing (Nanchuan), Guizhou (Anlong), Yunnan [NE India].

5. Cyclea racemosa Oliver, Hooker's Icon. Pl. 20: t. 1938. 1890.

# 轮环藤 lun huan teng

Cyclea racemosa f. emeiensis H. S. Lo & S. Y. Zhao.

Vines, woody when old. Branches slender, striate, puberulent or subglabrous. Petiole slender, shorter than or subequal to lamina, puberulent; leaf blade peltate or subpeltate, ovate-triangular or triangular-rotund,  $4-9 \times 3.5-8$  cm or slightly longer, papery, abaxially usually densely puberulent and sometimes pilose, adaxially sparsely puberulent or subglabrous, base subtruncate to cordate, margin entire, apex mucronate to caudateacuminate, palmately 9–11-veined, together with fine reticulation prominent abaxially. Inflorescences narrowly thyrsoid, densely flowered, 3–10 cm or longer; rachis slender, densely puberulent, branched part less than 1 cm; bracts ovate-lanceolate, ca. 2 mm, apex caudate-acuminate, puberulent abaxially. Male flowers: calyx mitriform, 4-lobed almost to base, 2 lobes broadly ovate,  $2.5-4 \times 2-2.5$  mm, apex inflexed, 2 lobes suboblong, 1.8–2 mm wide, apex inflexed; corolla cup-shaped or shallowly cup-shaped, margin entire or 2–6-lobed almost to base; synandrium ca. 1.5 mm, anthers 4. Female flowers: sepals 1 or 2, base saccate, middle part contracted, 1.8–2.2 mm, apex slightly expanded and inflexed; petals 1 or 2, minute, often rotund, ca. 0.6 mm in diam.; ovary densely bristled, stigma 3-lobed. Drupes oblate, sparsely bristled; endocarp 3.5–4 mm in diam., abaxially bearing 3 rows of conical tubercles; condyle conspicuously globose. Fl. Apr–May, fr. Aug.

• Forests, forest margins, shrublands. Fujian, N Guangdong, C and N Guizhou, W Hubei, Hunan, Jiangxi, ?S Shanxi, C, E, and SE Sichuan, S Zhejiang.

The name *Cyclea racemosa* f. *emeiensis* (峨眉轮环藤 e mei lun huan teng) has been applied to material from around Emei Shan with glabrous mature leaves.

#### 6. Cyclea longgangensis J. Y. Luo, Guihaia 9: 197. 1989.

### 弄岗轮环藤 long gang lun huan teng

Vines, woody. Branches striate, hispid. Petiole thick, 1.5-8 cm; leaf blade narrowly peltate, triangular-ovate,  $3-12.6 \times 2.7-12$  cm, papery, abaxially grayish green, adaxially dark green and glossy, base slightly cordate to subtruncate, margin entire, ciliate, apex usually mucronate, palmately 7-veined, hispid along veins, reticulation conspicuous on both surfaces. Inflorescences racemose, composed of cymelets, axillary or cauliflorous. Male flowers: sepals 4, free, oblong-elliptic,  $1.3-1.5 \times 0.8-1$  mm, apex obtuse; petals 4, free, slightly fleshy, ca. 0.2 mm, ca. as wide as long; synandrium ca. 0.8 mm. Female flowers unknown. Infructescences 2–5.5 cm. Drupes oblate, ca. 4 mm in diam., with many tubercles; endocarp abaxially bearing 5 or 6 rows of sinuous rugae. Fl. May–Jun, fr. Oct–Nov.

• Guangxi (Longgang).

7. Cyclea insularis (Makino) Hatusima, Mem. Fac. Agric. Kagoshima Univ. 5(3): 29. 1966.

# 海岛轮环藤 hai dao lun huan teng

Cissampelos insularis Makino, Bot. Mag. (Tokyo) 24: 227. 1910; Paracyclea insularis (Makino) Kudô & Yamamoto.

Vines. Stems terete, sulcate, glabrous; branches longitudinally striate, retrorsely puberulent. Petiole usually shorter, rarely longer, than lamina, retrorsely puberulent; leaf blade peltate, triangular-cordate,  $3-9 \times 2.5-8$  cm, papery, abaxially pubescent, adaxially puberulent, base shallowly cordate, truncate, or slightly protruding, margin entire or sparsely serrate, apex mucronate, with a mucronate acumen, palmately 5-7-veined, fine reticulation dense. Inflorescences axillary, 1–3 per axil, cymose or narrow, thyrsoid, and racemelike, usually shorter, rarely longer, than leaves; rachis appressed puberulent; branches very short, 2- to few flowered; bracts ovate-rhombic, sharply acuminate, puberulent abaxially. Male flowers: sepals 4 or 5, connate at base, obovate or spatulate,  $0.6-1.3 \times 0.6-1$ mm, mucronate, pilose abaxially; petals 4(or 5), opposite to sepals, oblong to rotund, minute, sometimes absent, ca. 0.5 mm; synandrium ca. 1.5 mm, anthers 4. Female flowers: sepals 2, elliptic to rotund, base slightly thick and concave, ca. 1.5 mm, apex obtuse or slightly mucronate, puberulent abaxially; petal occasionally 1, minute; ovary saccate-obovoid, ca. 1 mm, glabrous or pubescent, stigma 3-lobed. Drupes obovate-rounded, ca. 5 mm in diam., glabrous or sparsely spreading pubescent; endocarp abaxially bearing 3 rows of tubercles. Fl. summer.

Forests. NW Guangxi, S Guizhou, Taiwan [Japan].

1a.	Male flowers with 4(or 5) petals;
	inflorescences to 3 per axil, cymose,
	shorter than petiole
1b.	Male flowers usually without petals;
	inflorescences solitary or paired, narrow,
	thyrsoid, and racemelike, up to as
	long as leaf, rarely longer 7b. subsp. guangxiensis

#### 7a. Cyclea insularis subsp. insularis

海岛轮环藤(原亚种) hai dao lun huan teng (yuan ya zhong)

Inflorescences to 3 per axil, cymose with well-developed branches, shorter than petiole. Male flowers: petals 4 or 5.

Taiwan (Lan Yu) [Japan].

**7b.** Cyclea insularis subsp. guangxiensis H. S. Lo, Guihaia 6: 57. 1986.

# 黔贵轮环藤 qian gui lun huan teng

Inflorescences solitary or paired, narrow, thyrsoid, and racemelike, up to as long as leaf, rarely longer. Male flowers: petals usually absent. Fl. summer.

• Forests. NW Guangxi, S Guizhou.

**8.** Cyclea gracillima Diels in Engler, Pflanzenr. 46(IV.94): 319. 1910.

# 纤细轮环藤 xian xi lun huan teng

Cyclea densiflora (Yamamoto) Y. C. Tang & H. S. Lo; Paracyclea densiflora Yamamoto; P. gracillima (Diels) Yamamoto.

Vines, herbaceous. Young branches puberulent. Petiole shorter than lamina; leaf blade  $\pm$  peltate, cordate-ovate to triangular-ovate,  $2-8 \times 1.5-5$  cm, papery or membranous, abaxially tomentose, adaxially subglabrous, base deeply cordate to subtruncate, apex acuminate, usually palmately 5-veined. Male inflorescences solitary or 2- or 3-fascicled, paniculate or racemose, axillary, densely puberulent. Male flowers: sepals 5, connate at base, ovate to obovate, ca. 1 mm, base thickened, puberulent abaxially; petal 1, minute, rotund, sometimes absent; synandrium 1–1.2(–3) mm. Female inflorescences axillary, solitary, usually paniculate. Female flowers: sepal and petal each 1, broadly deltoid or broadly ovate, ca. 1 mm, hispid abaxially. Drupes red, subglobose, ca. 4 mm in diam., puberulent; endocarp abaxially bearing 3 rows of tubercles; condyle not perforate. Fl. Apr–Aug.

· Forests or shrublands at low altitudes. Hainan, Taiwan.

9. Cyclea ochiaiana (Yamamoto) S. F. Huang & T. C. Huang, Fl. Taiwan, ed. 2, 2: 594. 1996.

### 台湾轮环藤 tai wan lun huan teng

*Cissampelos ochiaiana* Yamamoto, Icon. Pl. Formosan., Suppl. 4: 14. 1928; *Paracyclea ochiaiana* (Yamamoto) Kudô & Yamamoto.

Vines. Branches terete, striate. Petiole slender, 0.5-5 cm, pilose; leaf blade narrowly peltate, triangular-ovate,  $3-6.5 \times 2.5-5$  cm, abaxially densely tomentose, adaxially glabrous or pilose, base truncate to shallowly cordate, margin bluntly 1- or 2-toothed, apex acute, basal veins 5–7. Inflorescences axillary, solitary, narrowly paniculate, 4-8 cm,  $\pm$  conical. Male flowers: pedicel ca. as long as sepals; sepals 4, outer ones broader, abaxially pubescent; petals apparently absent; synandrium shorter than sepals. Female flowers: pedicel shorter than sepals; sepals 2, oblong-ovate, recurved; ovary densely hairy. Drupes red, compressed globose, ca.  $3 \times 2$  mm thick, hispid; endocarp abaxially bearing 2 rows of tubercles; condyle ?not perforate.

• Forest margins at low altitudes. Taiwan.

**10.** Cyclea meeboldii Diels in Engler, Pflanzenr. 46(IV.94): 315. 1910.

### 云南轮环藤 yun nan lun huan teng

Vines, to ca. 3 m. Branches striate, ferruginous hispid. Petiole 5–10 cm, hispid, striate, base geniculate; leaf blade not peltate, broadly cordate or cordate-rotund, 7–18 cm, papery, both surfaces hispid, abaxially densely so, apex acuminate or mucronate, palmately 5–7-veined, together with fine reticulation prominent abaxially. Inflorescences axillary, male inflorescence a narrow thyrse, racemose, ca. 8 cm, hispid, branches 1– 1.5 cm. Male flowers: pedicels ca. 1.5 mm; sepals 4, connate, tube ca. 0.4 mm, lobes narrowly ovate, extending outward, ca. 0.8 mm, hispid abaxially; petals 4, free, broadly obovate, slightly fleshy, ca.  $0.4 \times 0.3$  mm, glabrous; synandrium ca. 0.7mm. Female flowers unknown. Infructescences shortly pedunculate or subsessile, 5–8 cm, hispid. Drupes oblate; endocarp ca. 4 mm, abaxially bearing 2 or 3 rows of tubercles.

Forests; 700-800 m. S and SW Yunnan [NE India].

### 11. Cyclea debiliflora Miers, Contr. Bot. 3: 242. 1871.

# 纤花轮环藤 xian hua lun huan teng

Vines. Branchlets striate, puberulent to subglabrous. Petiole 2–4 cm, glabrous; leaf blade triangular-ovate,  $8-13 \times 5-7.5$  cm, papery, abaxially pale green and puberulent, adaxially dark green and subglabrous, base usually subtruncate or slightly rounded, apex acuminate, palmately 9(–11)-veined, prominent abaxially. Male inflorescences loosely paniculate, axillary, puberulent, branching filamentous, ultimate branching umbelliform; pedicels 1–1.5 mm, bracts ciliate. Male flowers: sepals mitriform, membranous, glabrous, ca. 2 mm; corolla cupshaped, ca. 1.2 mm; synandrium conspicuously exserted, ca. 2.5 mm. Infructescences ca. 12 cm, sparsely pubescent. Endocarp 5–5.5 × 4–4.5 mm, abaxially bearing 3 rows of tubercles, base subtruncate.

Dry and sparse forests. Yunnan (Yingjiang) [NE India].

**12.** Cyclea tonkinensis Gagnepain, Bull. Soc. Bot. France 55: 38. 1908.

# 南轮环藤 nan lun huan teng

Vines, herbaceous or slightly woody. Branches slender, striate, puberulent. Petiole 1.5–6 cm, densely puberulent; leaf blade narrowly peltate, insertion close to margin, broadly triangular-ovate or cordate,  $4-10 \times 2-7$  cm or slightly longer, papery, abaxially slightly pale, both surfaces puberulent or adaxially subglabrous, base cordate to subtruncate, apex long acuminate, palmately usually 10–12-veined, prominent abaxially. Inflorescences thyrsoid, often racemose, axillary, solitary

or didymous, narrow, slender, 6–12 cm; bracts puberulent. Male flowers: calyx inconspicuously 4-lobed, tube urceolate, black when dried, loosely pubescent, 1–2 mm; corolla cup-shaped or 2–4-parted almost to base, 0.3–0.5 mm; synandrium ca. 1.5 mm. Female flowers: sepals 2, saccate or deeply cucullate, 1.5–1.7 × ca. 0.5 mm, glabrous; petals 2, minute, broadly obdeltoid-cordate, ca. 0.4 mm, inserted at base of sepals; ovary glabrous. Drupes oblate, sparsely pubescent; endocarp ca.  $3 \times 3.5$  mm, abaxially bearing 3 rows of tubercles. Fl. Sep–Nov, fr. Feb–Apr of following year.

Forests, shrublands. SW Guangxi, SE and SW Yunnan [Laos, N Vietnam].

13. Cyclea polypetala Dunn, J. Linn. Soc., Bot. 35: 485. 1903.

### 铁腾 tie teng

Vines, woody, to 10 m or longer. Branchlets longitudinally striate, hispid-puberulent. Petiole 3–7 cm, hispidulous, base geniculate; leaf blade sometimes narrowly peltate, broadly cordate,  $6-18 \times 5.5-15$  cm, papery, abaxially hispid or puberulent, adaxially glabrous and glossy, margin entire, apex acuminate, palmately 5–7-veined, together with fine reticulation prominent abaxially. Inflorescences paniculate, cauliflorous, broad and large, up to 15 cm, hispid or puberulent; pedicel 0.7–1 mm. Male flowers: calyx suburceolate, apex subtruncate or with crenellated lobes, 1–2 mm; petals 4, free, oblong,  $\pm$  fleshy, 0.5–1.5 mm; synandrium less than 2 mm. Female flowers: sepals 2, deeply cucullate, ca. 0.5 mm; petals 2, rotund, 0.1–0.3 mm in diam., adnate to base of sepals, margin involute. Drupes subglobose, slightly flattened, glabrous; endocarp ca. 4 mm, abaxially bearing 3 rows of tubercles. Fl. and fr. Apr–Nov.

Forests. S Guangxi (Longzhou), Hainan, SE and SW Yunnan [N and NE Thailand].

Flora of China 7: 27-31. 2008.